

A REPORT TO THE GOVERNOR

HAWAII'S WORKFORCE IN 2005: ADDRESSING THE LABOR SHORTAGE AND IMPROVING THE PIPELINE



DECEMBER 2004

HAWAII WORKFORCE DEVELOPMENT COUNCIL
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

**Hawai`i's Workforce in 2005:
Addressing the Labor Shortage and
Improving the Pipeline**

2005 Report to the Governor

December 2004

Hawai`i Workforce Development Council

**THE HONORABLE LINDA LINGLE
GOVERNOR, STATE OF HAWAII**

**NELSON B. BEFITEL
STATE OF HAWAII DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS**

HAWAII WORKFORCE DEVELOPMENT COUNCIL

Members

Gregg Yamanaka, Chair	President & Chief Learning Officer, TeraBiz
Todd Apo	Vice-President, Ko Olina Community Association
Marcia Armstrong	UHPA; Med.Lab.Tech.Program Dir., KCC (Labor)
Gladys Baisa	Exec. Dir., Maui Economic Opportunity, Inc.
Elias Beniga	Registered Rep., AXA Advisors, LLC; Oahu WIB Chair
Jeff Bloom	President & Owner, CTA
E. Micheal Boughton	President, Options Technology Company, Inc.
Jonathan Chun	Attorney, Belles, Graham, Proudfoot & Wilson
Susan Doyle	Vice President & COO, Aloha United Way
Will Espero	Hawaii State Senator
Michael Fitzgerald	President & CEO, Enterprise Honolulu
Alan Garson	President, G & G Consultants, Hawaii WIB Chair
Signe Godfrey	President, Olsten Staffing Services
Erwin Hudelist	President, Hagadone Printing
Alan Ito	Sr. VP, Product Development, Convergence CT
Michael Kahikina	Member, Hawaii House of Representatives
Wayne Kanemoto	Owner, Kanalani Enterprises, Ltd.
Denis Mactagone	Sr. Service Rep, Hawaii Carpenters Union Local 745
Stephen Metter	CEO, MW Group
Scott Nishimoto	Member, Hawaii House of Representatives
Darnney Proudfoot	Manager, Kauai Island Utility Coop; Kauai WIB Chair
Norman Sakamoto	Hawaii State Senator
Winona Whitman	E&T Program Administrator, ALU LIKE, Inc.

Ex Officio Members

Linda Lingle, Governor
Alan Arakawa, Maui Mayor
Jeremy Harris, Honolulu Mayor
Nelson B. Befitel, DLIR Director
Dr. David McClain, UH President
Patricia Hamamotoa, Superintendent
Lillian Koller, DHS Director
Ted Liu, DBEDT Director

Designees

Lester Nakamura
JoAnn Inamasu
Michael Amii
James Hardway
Michael Rota
Katherine Kawaguchi
Garry Kemp
Robert Shore

Staff

Ann Yamamoto, Executive Director
Dorothy Bremner, Employment Analyst
Jeannie Kuan-Yee Chan, Employment Analyst
Carolyn Hildebrand, Employment Analyst
Audrey Yasutake, Secretary

LINDA LINGLE
GOVERNOR



STATE OF HAWAII
WORKFORCE DEVELOPMENT COUNCIL
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
830 Punchbowl Street, Room 417
Honolulu, Hawaii 96813

NELSON B. BEFITEL
DIRECTOR

COLLEEN Y. LaCLAIR
DEPUTY DIRECTOR

GREGG YAMANAKA
CHAIRPERSON

December 2004

The Honorable Linda Lingle
Governor, State of Hawai'i
State Capitol
Honolulu, Hawai'i 96813

Dear Governor Lingle:

I am pleased to transmit the Workforce Development Council's *2005 Report to the Governor*, which, on pages 2 and 3, recommends 13 actions and priority policies for you to consider. We have emphasized strategies to address the long-term labor shortage facing the State and the need to improve the preparedness of Hawai'i's workforce. The insert, *A Funding Summary 2003-2004*, presents the education expenditures in proportion to the almost \$92 million of workforce employment and training programs to assist targeted special populations. To increase our labor pool, these are the very groups that we must integrate better into the workforce.

The contents of this 2005 report incorporate the joint response to HCR 112, H.D. 1 Requesting the Department of Business, Economic Development and Tourism and the Workforce Development Council to Report to the Legislature Regarding the Identification and Development of Labor Supply and Demand Matrices, and the Expansion of the Educational Pipeline Subsequent to the Enactment of Act 148, Session Laws of Hawai'i 2003.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregg Yamanaka".

Gregg Yamanaka
Chair

Photo Credits

CTA – cover, page 12

Hawai`i Department of Business, Economic Development & Tourism – cover, pages 8, 17, 22

O`ahu WorkLinks – cover, pages 4, 11

University of Hawai`i SOEST – cover

Workforce Development Council – cover

Table of Contents

Funding Summary Insert

Executive Summary	1
Recommendations to the Governor	2
I. General Labor Shortage	5
Table 1. Hawai'i's Population Distribution by Age	5
Table 2. Workers in Critical Jobs are Near Retirement Age	5
Workforce Strategies to Meet Labor Demand	6
Alternative Teacher Certification	6
Registered Nurses	6
Table 3. Average Annual Openings, 2002-2012	7
Need 22,000 New Workers a Year	7
In-migrants and Returning Kama`aina	9
Low Civilian Labor Force Participation	9
Table 4. Hawai'i's Declining Per Capita Personal Income as Percent of U.S. Average	9
Table 5. Percent of Population Age 16 and Older Participating in the Hawai'i Workforce 2000	10
Immigrants	10
Rural Areas	10
Persons With Disabilities	11
TANF Clients	11
Delayed Retirees	11
Ex-offenders	11
Substance Abusers	11
II. Preparedness of the Workforce	13
Pre-school	13
Public K-20 Education	13
Table 6. Measuring Up 2004	14

Business Internships and Mentorships	14
Economic Education	14
Work Readiness Certificate	15
Table 7. Post-Secondary Participation and Completion	16
Strategies to Expand Youth and Adult Participation in Post-Secondary Degree or Certificate Programs	16
NGA Pathways Project	16
Feed More People into the Post-Secondary Education Pipeline	17
Minimum Support Services to Post-Secondary Students	17
To Keep Education Up-to-Date	17
Customized Education and Training to Incumbent Workers	18
Career Planning	18
III. Determining Future Labor Demands	19
Identification of Industries	19
Labor Demand: Identification of Occupations and Skill Needs	19
Table 8. Community Recommendations for Targeted Industries in Hawai'i	20
Table 9. Job/Education Demand Supply Gap	21
Labor Supply: Match Projected Occupations to Existing Post-Secondary Programs	21
2005 Timeline	22
State of Hawai'i Workforce Development Strategic Plan	23
Appendices	
Appendix A. HCR 112, H.D. 1	25
Appendix B. The EFF Work Readiness Profile	29
Appendix C. References for Identification of Industries, Occupations & Skills	30
Abbreviations	33
End Notes	34

Hawai`i's Workforce in 2005: Addressing the Labor Shortage and Improving the Pipeline

This year the Workforce Development Council (WDC) has organized its report around a response to HCR 112, H.D. 1 (SLH 2004). That resolution requested “**the Department of Business, Economic Development and Tourism and the Workforce Development Council to Report to the Legislature Regarding the Identification and Development of Labor Supply and Demand Matrices, and the Expansion of the Educational Pipeline Subsequent to the Enactment of Act 148, Session Laws of Hawaii 2003**”¹. The WDC partnership among education and economic and workforce development seeks to deliver ample and trained workers to good jobs that pay well. To do so, we need to ease a tight labor supply and improve the school-to-work pipeline.

Executive Summary

Last year, the WDC's report to the Governor warned of how the emerging short-term and potential long-term labor shortages could stifle economic investment and diversification. The report stressed the need to 1) better educate Hawai`i's youth; 2) move more people into and through the education-to-work pipeline; and 3) involve the private sector more in workforce preparation.

Through HCR 112, the 2004 Legislature asked the WDC and DBEDT for an update on implementation of Act 148, specifically on efforts to identify industry clusters, workforce preparation for those industry clusters, and efforts to increase the number of people seeking post-secondary degree or certificates.

The primary vehicle for the Council's investigation of these issues has been its National Governors' Association (NGA) Pathways to Advancement project. This effort looked closely at what is needed to assure a diverse competitive workforce that supports the economic development goals of the State. It also studied cross-cuts of industry/occupation/education requirements and compared those with job openings and state demographics.

The most significant conclusions of this effort are that, no matter what industry one considers:

1. Hawai`i's education and training system has the range of training available to address the needs of nearly any industry identified to date. Key is businesses' communication to education of their custom needs and how many will need to be trained.
2. Perhaps more critical than the availability of training is the availability of participants. Hawai`i is experiencing a cyclical labor shortage and faces the prospect of a long-term labor shortage due to basic demographics.
3. To address the short-term and long-term shortage, more people must enter and continue in Hawai`i's pipeline from high school and from low income jobs into post-secondary education, as the future jobs paying a living wage generally require education beyond high school.
4. Workers with portable skills will succeed in most industries.

Hawai`i's education system can respond to industry needs.

Address long-term labor shortage.

Increase the number of people entering and continuing in Hawai`i's pipeline to post-secondary education.

Ensure workers have portable skills.

Recommendations to the Governor

The Workforce Development Council (WDC) recommends the following actions and priority policies to the Governor to achieve a high-earning, ample workforce that will support the diversification and increased competitiveness of Hawai'i's economy.

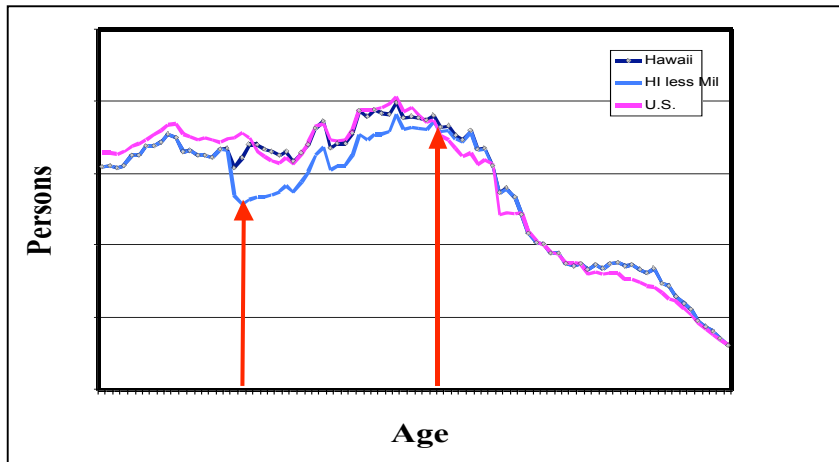
<p><i>Expatriates</i></p> <p><i>Ex-offenders</i></p> <p><i>Alternative teacher certification</i></p> <p><i>Nurse training</i></p> <p><i>Business internships and mentorships</i></p> <p><i>Early childhood education</i></p>	<p>A. Recommendations to address the immediate labor shortage:</p> <ol style="list-style-type: none"> 1. Individuals with Hawai'i links living away from the islands represent a significant opportunity for recruitment. WDC recommends that the State support development of a universal web-based community, currently being fleshed out by DBEDT, to link Hawai'i's expatriates with the State's employment and economic opportunities. 2. To help increase the labor supply, Hawai'i will need to increase the labor force participation rate of currently underrepresented groups, such as people with disabilities, Temporary Assistance for Needy Families (TANF) clients, immigrants, out-of-school youth, senior citizens, and people with substance abuse and ex-offender backgrounds. In addition to continuing support for existing programs to increase the participation of these groups, WDC recommends that the Department of Public Safety be appropriated funds to purchase job development services for upcoming parolees. 3. The supply of teachers and healthcare workers is tightening. To encourage an increase in the supply of these critical workers, WDC recommends that: <ol style="list-style-type: none"> a. The Hawai'i Teachers Standards Board recognize alternative certification for demonstrably knowledgeable and capable applicants. b. The State expand the post-secondary capacity to train nurses. <p>B. Recommendations to address long-term labor supply needs and self-sufficiency for individuals and families: These focus on making sure that all residents have the encouragement, education, and work readiness to participate in the range of opportunities in the more technological, competitive workplace of the future.</p> <ol style="list-style-type: none"> 1. Students who have hands-on experience in the workplace gain a better understanding of how their classroom education is applied in the "real world". A major linchpin in this "contextual learning" strategy is the availability of internships and mentoring. WDC recommends that the Governor promote business participation in internships and mentorships, including the requirement that all businesses benefiting from tax incentives provide a minimum number of hours of formal mentorship to youth. 2. For the first time, WDC directs its attention to children who enter Kindergarten unprepared to learn and emerge from high school inadequately equipped to compete in the workforce. Research shows that early childhood education significantly increases the long-term, effective participation in the labor force and reduces costly social problems. Therefore, WDC recommends that Hawai'i increase support for pre-Kindergarten early childhood education.
--	---

Recommendations to the Governor, continued

<p>3. Youth must better understand how the economy works and their options for participation. Therefore, WDC recommends that the Governor support efforts by the Department of Education (DOE) to deliver a balanced program of economic education that includes financial literacy and entrepreneurial readiness.</p> <p>4. All workers should be equipped with the most basic work readiness skills. WDC recommends exploration of a Work Readiness Certificate, including guidelines, as a portable declaration that a person is work-ready.</p> <p>5. To effectively participate in the labor force, individuals need adequate information about opportunities and the training they need to hold a particular job or earn a particular salary. Several states, such as New Jersey, New York, Indiana, Minnesota, and Nevada, provide model comprehensive career planning web sites. WDC recommends that the State adequately fund, coordinate, enhance, and link an internet-based, universally accessible, comprehensive resource system for lifelong career planning.</p> <p>6. With living-wage jobs in the future likely to require two or more years of technical training after high school, keeping youth in the post-secondary educational pipeline, as well as adding low-income working adults to that stream, will be critical to the economy and family self-sufficiency. WDC has been an active partner in the National Governors' Association (NGA)-funded "Pathways to Advancement" project in Hawai'i. By June 2005, the project will propose several strategies to increase the pipeline. At this time, WDC is ready to endorse to the Governor one key recommendation emerging from the NGA project, which is funding of the University of Hawai'i (UH) revolving fund for need-based student financial aid.</p>	<p><i>Economic education</i></p> <p><i>Work readiness certificate</i></p> <p><i>Career planning resource system</i></p> <p><i>UH student financial aid</i></p>
<p>C. Continued research into identifying emerging high value industry clusters and their workforce needs is extremely important to economic development, workforce development, and education. Thus, WDC recommends that:</p> <p>1. The State follow up on identification of industry clusters made through the county-based Comprehensive Economic Development Strategy (CEDS) process by conducting sophisticated supply/demand analysis of the identified target industries, and forecasting implications of various future supply/demand scenarios.</p> <p>2. The Governor endorse expansion of local workforce-related data collection and research and State participation in the Census Bureau's Local Employment Data (LED) program. At modest or no cost to the State, LED represents a quantum leap in the information available to base economic, labor force, education and infrastructure planning and decision-making.</p>	<p><i>Supply/Demand Analysis of CEDS' targeted industries:</i></p> <ul style="list-style-type: none"> • Agriculture • Healthcare/Life Sciences • Technology • Tourism • Film & Digital Media • Energy <p><i>Local Employment Data (LED)</i></p>



Table 1. Hawai'i's Population Distribution by Age



Source: U.S. Census Bureau, 2000 Census

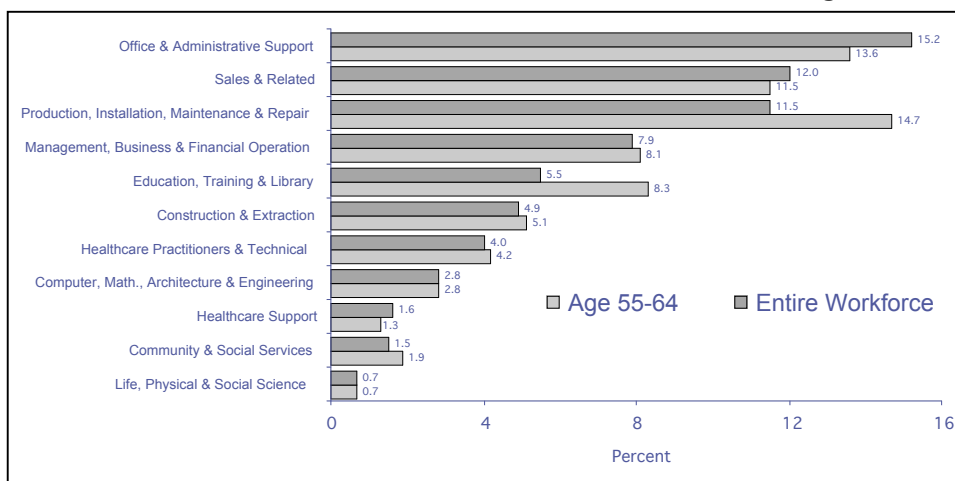
I. General Labor Shortage

The emerging labor shortage is the context for WDC's assessment of how well Hawai'i's workforce development sector can support a strong state economy. Hawai'i has a somewhat smaller proportion of workers between ages 18 and 45 due to demographics as well as the outflow of people during the State's decade of economic stagnation. (See Table 1).

As this labor shortage tightens, essential services are becoming

strained. Public schools, which educate youth and remediate adults, and police departments, which provide public protection and safety, are already affected. Moreover, Table 2 shows that there is a preponderance of older workers (55-64 year olds) in education and in production/installation/maintenance/repair. Therefore, these fields will have particularly high labor demands as these mature workers retire in increasing numbers in the coming years.

Table 2. Workers in Critical Jobs are Near Retirement Age



Source: U.S. Census Bureau, 2000 Census; 5%PUMS Files

Workforce Strategies to Meet Labor Demand

WDC recommends that the Hawai'i Teacher Standards Board recognize alternative certification.

WDC recommends that the State expand the post-secondary capacity to train nurses.

Alternative Teacher Certification.

It is imperative that Hawai'i have a sufficient number of qualified teachers in the classroom if young people in the K-12 system are to be well-prepared for higher education and jobs.

Hawai'i and the nation face a serious shortage of qualified teachers, especially for mathematics, physical science, special education, and bilingual education. In 2004, WDC supported the intent of a Senate bill to allow the DOE to hire professionals as exceptional teachers and to authorize alternatives to teacher licensing. Hawai'i is not alone in this effort. There are two notable national models for alternative teacher certification.

- New Jersey has one of the most successful "alternate route" teacher certification programs in the U.S. School districts have expanded their teacher pool by bringing in candidates – mostly recent college graduates – with academic expertise and an interest in teaching but unwilling to invest the time and money to graduate from a College of Education. Hired without any credentials except their undergraduate degrees, they 1) undergo classroom mentoring with a veteran teacher; 2) take a much-condensed version of the traditional education courses; 3) have to pass a state-administered subject matter test. They are certified after completing these three steps, with the principal's confirmation they can perform in the classroom.

As of September 2000, New Jersey reported that more than 20% of new teachers had come through the alternative certification route. This number has since increased to 40% in 2003. These teachers have substantially higher scores on the state's subject-matter tests and lower attrition rates than traditionally-trained teachers.²

- Since 2001, the U.S. Department of Education's Transition to Teaching Program has been providing five-year grants to State educational agencies to support efforts to recruit, train, and place talented and knowledgeable individuals in teaching positions and to support them during their first years in the classroom.³

Registered Nurses. There is a critical shortage of registered nurses (RNs) in Hawai'i. The shortage in 2000 was 1,041, and is expected to grow to 1,518 by 2005 and 2,267 by 2010.

Yet UH nursing programs turned away 243 qualified applicants in Fall 2003 due to lack of nursing faculty. To admit approximately 90 additional nursing students a year, the UH Systemwide Nursing Council requested \$5.3 million for 18 new nursing faculty positions, \$3.6 million to provide competitive salary adjustments to retain current nursing faculty, and \$1.7 million for UH nursing programs.

**Table 3. Hawai'i Needs 22,000 New Workers Each Year Through 2012:
Average Annual Openings, 2002-2012**

Occupational Category	Due to Growth	Due to Separations	Total	Percent
Total, All Occupations	8,270	13,620	21,890	100.0%
Food Preparation & Serving Related	890	2,660	3,560	16.3%
Office and Administrative Support	640	2,260	2,900	13.2%
Sales and Related	640	1,850	2,500	11.4%
Education, Training & Library	780	730	1,510	6.9%
Transportation & Material Moving	370	800	1,170	5.3%
Construction & Extraction	660	490	1,150	5.3%
Building & Grounds Clean & Maintenance	510	630	1,140	5.2%
Management	450	540	990	4.5%
Protective Service	480	450	930	4.3%
Healthcare Practitioners & Technic.	480	420	900	4.1%
Installation, Maintenance & Repair	290	500	790	3.6%
Personal Care and Service	330	430	760	3.5%
Healthcare Support	440	230	670	3.1%
Business & Financial Operations	340	300	640	2.9%
Production	170	440	610	2.8%
Community & Social Services	210	160	360	1.6%
Computer and Mathematical	190	90	280	1.3%
Art, Design, Entertainment, Sports & Media	130	180	310	1.4%
Life, Physical & Social Science	90	110	210	1.0%
Architecture & Engineering	70	170	240	1.1%
Farming, Fishing & Forestry	10	130	140	0.6%
Legal	70	50	120	0.6%

Source: Hawai'i DLIR 2004

Need 22,000 New Workers a Year.

Even with moderate growth, the State will need roughly 22,000 new workers each year through 2012 (See Table 3), whereas only 12,000 youth will enter the Hawai'i workforce each year. Only about 8,000 of these openings will be new jobs. Most workers will be needed to replace around 13,600 expected retirements.

The Council has determined that Hawai'i needs to address the full tapestry of infrastructure that must support workforce development and economic health. This includes

tapping into populations that are marginally participating in the workforce; increasing the quality of schools; boosting family literacy; providing more parenting education; addressing child care needs; more jobs paying self-sustaining wages; financial literacy; reduction of substance abuse and its impact on learning and work performance; the cost of health care; transportation solutions; and adequate, affordable housing. Weaknesses in any one of these areas are barriers to increasing the size of the labor force and economic growth.

Infrastructure to support workforce development and economic health



In-migrants and Returning

Kama`aina. Particular barriers to attracting talent from out-of-state are high housing costs (\$485,000 median price) and a limited supply of relatively high wage jobs. One-third of the population are “working poor” whose low wages do not cover the actual cost of living.⁴

A major untapped source of potential labor for Hawai`i is its Kama`aina populations abroad. DBEDT is exploring ways to reverse the “brain drain” of the past. To do this, the department is working with a number of existing efforts that are trying to contact and inform Hawai`i’s expatriates of new opportunities in the state if they want to return. Ultimately DBEDT envisions creation of a universal web-based community where the professional, geographic, and high school networks of Hawai`i’s expatriates can be linked to each other and the State’s abundant employment and economic opportunities.

Low Civilian Labor Force (CLF) Participation. Only 60.4% of

Hawai`i’s civilian population, age 16 and older, is participating in the workforce, compared to the national average of 66.2%.

Analysis of the census shows that the non-participants are most likely to be:

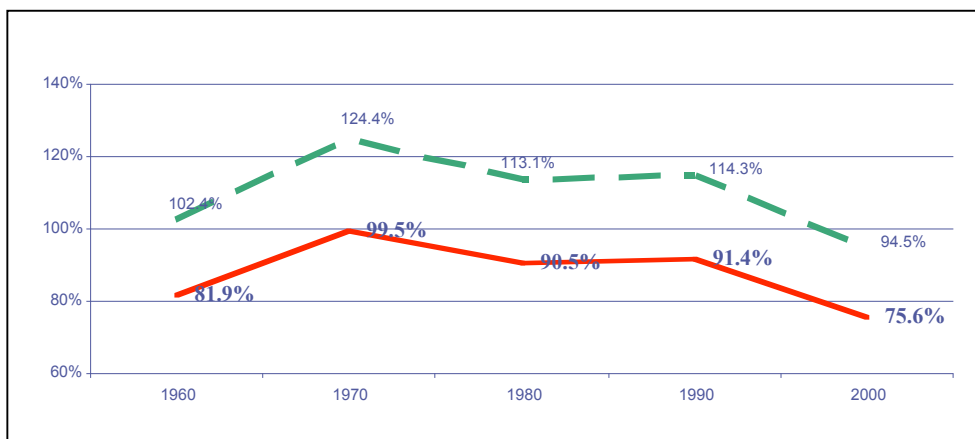
- Poorly educated
- Residing outside the urban core
- TANF clients
- Individuals with disabilities
- Ex-offenders
- Retirees
- Elderly

The *Funding Summary* insert shows that \$74 million of State and federal funds are dedicated to the workforce development of special populations –seriously disabled persons, welfare recipients, ex-offenders, immigrants, and unemployed people with multiple barriers. These are the groups that need to be better integrated into the workforce. Aside from education, the State funds for workforce development are for special populations, primarily as federal fund matches.

Increase participation of underrepresented groups in the labor force.

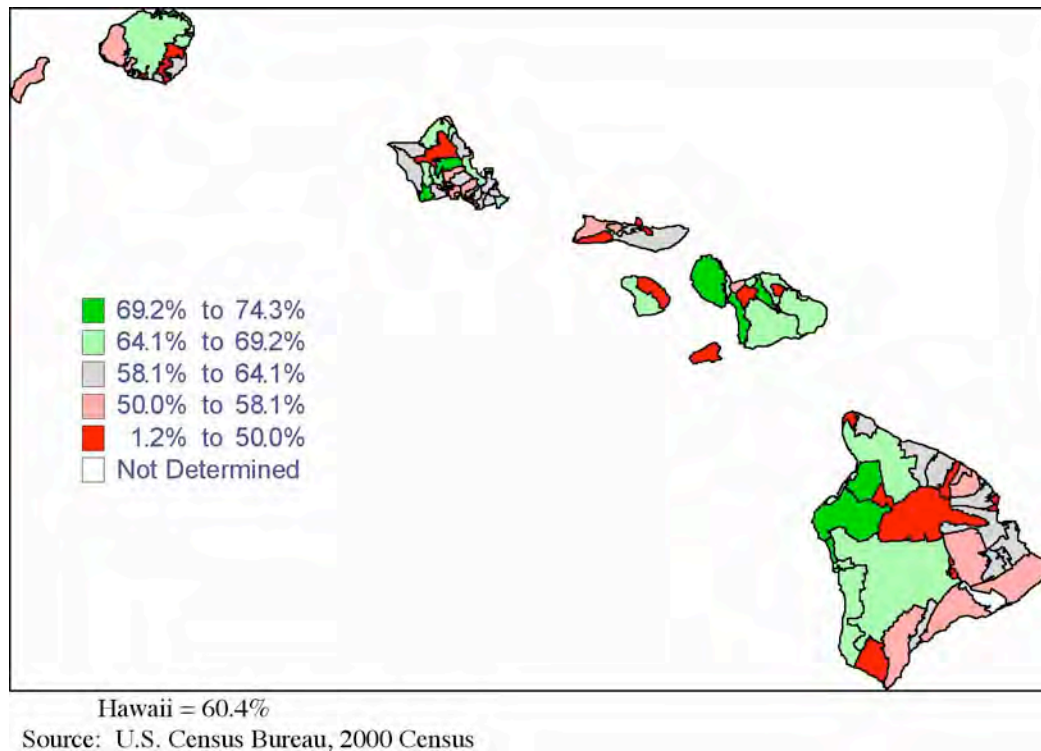
WDC recommends support for a universal web-based community to attract expatriates

Table 4. Hawai`i’s Declining Per Capita Personal Income as Percent of U.S. Average



Source: U.S. Census Bureau

Table 5. Percent of Population Age 16 and Older Participating in the Hawai'i Workforce, 2000



Immigrants. The 2000 U.S. Census shows that 17.5% of the state population is foreign-born, which calls for attention to the multicultural workplace, acculturation in schools and neighborhoods, and English as a Second Language (ESL). In fact, the DOE's enrollment in ESL has grown from 300 to 14,000 in 15 years.

The DOE has charged its Community Schools for Adults to deliver instruction contextually; that is, within the context of how the skills being learned will be used. Immigrants learn English most effectively in the context of doing their jobs. "Vocational English as a Second Language" describes this contextual English learning as development of language skills (listening, speaking, reading, writing) needed for the job; learning how to request assistance, report

problems and progress, clarify instructions, confirm understanding, complete paperwork, and work cooperatively with co-workers, supervisors, and the public.

Rural Areas. The State's geographic areas with low CLF participation include the Big Island, East Lana'i, West Moloka'i, and the area around Wailuku and Kahului. West Kaua'i, Koloa, and mauka of Lihue have low CLF participation, as do Central O'ahu, Waipahu, and Kalihi.

Maui Community College administers federal earmark grants that provide distance learning and occupational skills training for youth and incumbent workers in rural areas. The grants also address workforce development barriers.

People With Disabilities.

Approximately 20% of the State's population, or an estimated 249,000 people, have disabilities. 149,000 of them are of working age. A 1994 Harris poll found that, nationally, 2/3 of all Americans with disabilities between the ages of 15 and 64 are not working.⁵ The State Department of Labor & Industrial Relations has a grant to train One-Stop personnel about access, assistive technology, job accommodations, and appropriate services for their customers with disabilities.

www.realchoices.org provides access to information and statewide services. It was designed to empower people of all ages and abilities to make self-determined choices.

TANF Clients. There are 10,269 Hawai'i TANF clients, mostly women, seeking work. The State Department of Human Services is publicizing the benefits to employers when they hire TANF clients, such as tax credits, customized training, and partial wages initially.

Delayed Retirees. Even though the baby boomer generation is reputed to be made up of workaholics, the people least likely to delay their retirement are those with government pension plans, such as teachers, social workers, and ex-military (who often work as technicians in production, installation, maintenance/repair).

The Senior Community Service Employment Program provides job training and placement for low income seniors. WDC plans to explore incentives to make senior careers attractive.

Ex-offenders. With 95% of the prisoners returning to the community, jobs and their stake in the community will contribute to reducing crime. The Corrections Education program works with them during incarceration, and a group of employers works with the furlough and parole programs to fill their job openings. However, a large percent of the prisoners who will be paroled do not receive job development services. To address this dilemma, the Department of Public Safety (DPS) seeks \$1.5 million to purchase these services for prisoners before they are paroled. The One-Stop Centers have the infrastructure in place to provide such job development.

Substance Abusers. According to surveys a decade ago, 9% of the State's adult population and 10% of the DOE's 6th to 12th graders needed treatment for alcohol and/or drugs. The use of "ice" has become an epidemic since the surveys, and employers complain that far too many applicants do not pass the drug tests to become employed.

The Lieutenant Governor's Hawai'i Drug Control Strategy emphasizes getting youth involved in their communities, which meshes with WDC's support for hands-on learning projects. The Strategy's call for wholesome activities during a youngster's free time should incorporate after-school tutorials and other DOE and Workforce Investment Act (WIA) services for at-risk youth that WDC supports.

WDC supports DPS' budget request to purchase job development services for upcoming parolees.





II. Preparedness of the Workforce

When in-migrants with higher skills arrive to fill jobs, long-time Hawai'i residents are left in low end jobs unless they are prepared to compete. This section presents the "pipeline" from "ready to learn", to persistence to complete a high school diploma, through post-secondary education to gain today's necessary workforce training.

Pre-school

A child who does not know colors, numbers and the alphabet as he or she enters Kindergarten is already behind and is unlikely ever to catch up. On the other hand, well-respected longitudinal studies found a significant return on investment (16%) for pre-school education as well as net public-dollar savings. Specifically, people who attended pre-school were less likely to repeat grades, require remedial education, be incarcerated for crimes, and become dependent on welfare.⁶

Two-thirds of young children have working parents. So their care is not only important to their development, but also to the reliability of their parents as employees. About 8,000 babies are born each year into low-income families in Hawai'i, and high quality care costs families over \$600 per child a month. Sixty percent of low-income 3- and 4-year-olds received a pre-school subsidy in 2001, primarily from TANF funds. The DOE serves about 2,000 children, ages 3-5, who are eligible for special education. The pre-school system only has the capacity to serve 2/3 of Hawai'i's 3- and 4-year-olds.⁷

Ways that the State can increase support for pre-Kindergarten include provision of pre-school scholarships for low-income families through expansion of pre-school capacity to accommodate all 3- and 4-year-olds.

Public K-20 Education

Improving the quality of public K-12 education is still one of the top issues of community concern. National measures of student performance have significantly lagged behind community and employer expectations.

Despite some improvements, Hawai'i remains mediocre in preparing students for college. Hawai'i is close to the top states in the rate of high school graduation. Hawai'i is far behind, however, in actual student performance in skills critical to success in post-secondary education and the new jobs. Table 6 shows that eighth graders in Hawai'i are not "proficient" on national assessments in math, science, reading, and writing, and therefore unprepared for challenging high school courses. Compared with their peers in top states, low-income 8th graders perform extremely poorly on national assessments in math.

While these problems are addressed by the federal "No Child Left Behind", Hawai'i's new demanding high school requirements, and education's emphasis on contextual learning, WDC's specific recommendations for K-20 education include:

1. Increase business mentorships and internships.
2. Support balanced economic education that includes financial literacy and entrepreneurial readiness.
3. Explore a Work Readiness Certificate.

WDC recommends that Hawai'i increase support for pre-Kindergarten early childhood education.

Table 6
Measuring Up 2004

Criteria	Top States	Hawai'i	A Decade Ago
	2004	2004	
18- to 24 –year-olds with a high school credential	94%	92%	94%
8 th graders scoring at or above “proficient” on the national assessment exam:			
in math	36%	17%	14%
in reading	39%	22%	19%
in science	42%	15%	15%
in writing	41%	18%	15%
Low-income 8 th graders scoring at or above “proficient” on the national assessment exam	23%	8%	7%
7 th to 12 th graders taught by teachers with a major in their subject **	81%	73%	58%

** New indicator for 2004

Source: National Center for Public Policy and Higher Education, 2003

WDC recommends that the Governor promote business participation in internships and mentorships, including the requirement that all businesses benefiting from tax incentives provide a minimum number of hours of formal mentorship to youth.

WDC recommends a balanced program of economic education, including financial literacy and entrepreneurial readiness.

Business Internships and Mentorships. WDC supports business internships, mentorships, and projects for youth. Students who have hands-on experience in the workplace gain a better understanding of how their classroom education is applied in the “real world”. They are more likely to complete their education and integrate faster and better into jobs they like. Both the DOE and UH use six career pathways to guide career exploration and link teaching and learning activities.

WDC recommends that the Governor promote business participation in internships and mentorships, which are a major linchpin in this “contextual learning” strategy. To further this concept, WDC believes that all business tax incentives should carry the requirement that the benefiting business provide a minimum number of hours of formal mentorship to youth.

The DOE will establish a centralized school coordinator for work-based learning by 2006. DOE will collect materials and set up its web site to provide the best

information to teachers and businesses on available business mentorships and internships.

DOE will also establish standards of practice, including a guide for businesses on how to mentor, how to meet safety requirements, and how to qualify for DOE to cover workers’ compensation.

Economic Education. WDC believes that a balanced program of economic education includes how the economy works and the newly defined areas of financial literacy and entrepreneurial readiness.

Financial literacy is especially important as upcoming generations need to be educated on how to exercise diligence in managing their personal finances, use credit cards wisely, protect their privacy, and save and invest for their retirement.

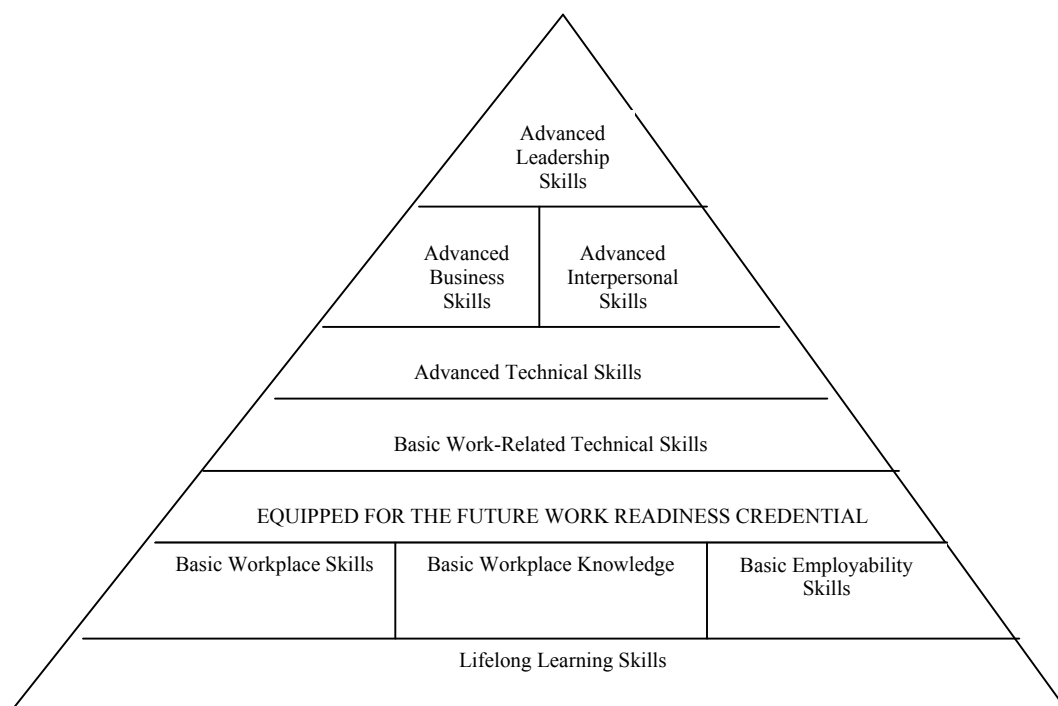
“Entrepreneurship education is distinguished from education in business management by its focus on three critical aspects of the entrepreneurial process:

- Opportunity recognition
- Marshalling of resources in the presence of risk
- Building a business venture

Business management focuses only on business ventures, leaving out most of what is unique to entrepreneurs. The education process can instill the value components of the first two at a relatively early age.” A model curriculum is the Kauffman Foundation’s “Making a Job” used in Iowa.⁸

Work Readiness Certificate. During 2005, the Department of Education, Honolulu Community College, and the State TANF program will be piloting a work readiness certificate based on the National Institute for Literacy’s “Equipped for the Future” (EFF), depicted below. See Appendix B for the EFF Work Readiness Profile. Once established, with guidelines in place, the certificate would be issued by DOE, UH, Adult Education, and WIA programs.

WDC recommends exploration of a Work Readiness Certificate



HCR 112, (1)(C): status of work on the expansion and enlargement of the educational pipeline through the promotion of youth and adult participation in post-secondary degree or certificate programs

Table 7. Post-secondary Participation and Completion

	<u>Top States</u>	<u>HI</u>
High school freshmen enrolling within 4 years	52%	38%
18- to 24-year-olds enrolling in college	40%	36%
1 st year community college students returning 2 nd year	63%	44%
Students completing bachelor's degree within 6 years	64%	46%

Source: National Center for Public Policy and Higher Education, "Measuring Up 2004", 2003.

Strategies to Expand Youth and Adult Participation in Post-Secondary Degree or Certificate Programs

Compared with a decade ago, relatively fewer youth are completing high school within four years, and the likelihood of students enrolling in college by age 19 has dropped. These trends undercut state efforts to develop a competitive knowledge-based workforce. Table 7 shows that Hawai'i's post-secondary participation and completion trail the top states.

NGA Pathways Project

NGA Pathways Project. Since 2003, Hawai'i has participated in the National Governors' Association (NGA) Pathways to Advancement Academy. Its purpose is to create a more coherent network of post-secondary educational opportunities that align with the State's economic development and workforce preparation goals, and contribute to the diversification of Hawai'i's economy, while preserving the environmental and cultural integrity of Hawai'i. The grant ends June 2005.

This section's recommendations and action plans were shaped by the Hawai'i NGA Pathways project.

NGA Pathways Project Goals

1. Increase the percentage of Hawai'i residents employed in family economic self-sufficient "living-wage" jobs (those paying \$40,000 or more per year), particularly in knowledge-based sectors.
2. Reduce the gaps between anticipated workforce demand and the supply of individuals with post-secondary degrees and certificates.
3. Create and increase the opportunities for participation in post-secondary education, training, and employment by people with employment barriers.
4. Implement policies and practices designed to increase the number of incumbent workers involved in post-secondary education and training by developing support for companies that encourage such opportunities for their employees, including non-management workers.
5. Increase the number of adults graduating from Hawai'i institutions with post-secondary credentials by 25% by 2010.

Feed More People into the Post-Secondary Education Pipeline

With most jobs in the future likely to require two or more years of technical training after high school, increasing the number of people in the educational pipeline beyond high school is critical to the economy and family self-sufficiency.

Reducing the need for remediation is one goal. The DOE and the Community Colleges are developing closer alignment between the high school curricula and college entry level requirements and expectations. The standards for the DOE Class of 2010 should reduce remediation upon entering the UH.

The DOE and the Community Colleges have already established programs and experiments to give dual credit for high school and community college courses. These arrangements make it comfortable and worthwhile for recent high school graduates to continue their college studies.

In 2004, the Farrington and Moanalua Community Schools for Adults started to proactively counsel their GED recipients to continue on to post-secondary education.

Other remediation points are WIA programs. WDC is proposing to local workforce investment boards that a certain per cent of WIA completers be steered to post-secondary education.

Another goal is creating sufficient post-secondary capacity to meet the demand for courses in technical fields. The NGA Pathways project will make recommendations about capacity by June 2005.

Minimum Support Services to Post-Secondary Students are needed to encourage and assist more Hawai'i adult learners, including incumbent workers, to successfully complete degrees and certificates so they may succeed in good jobs.

Financial aid for more post-secondary education participation is needed. Governor Linda Lingle signed two 2004 legislative bills that provide for scholarships. The UH is seeking a \$20 million appropriation from the 2005 legislature to establish a revolving fund for financial aid. Students would receive financial aid based on needs only and would be able to claim a tax credit for two years of tuition and take advantage of federal Pell grants. They have not been able to claim these benefits under the current tuition waiver form of aid.

The NGA Pathways project's recommendations and plans are expected by June 2005 regarding:

1. Availability of child care for students.
2. Easier access to courses through distance learning.

To Keep Education Up-to-Date, in 1999, the Millennium Workforce Task Force recommended that:

1. Post-secondary programs increase cross-discipline training across and within majors.
2. Post-secondary programs keep updated on skills. Committees of business people are the most direct source to advise university and college departments on required skills in existing industries.

Post-secondary Pipeline

WDC recommends funding of the University of Hawai'i (UH) revolving fund for need-based student financial aid.



Keep education up-to-date

Incumbent Workers

Customized Education and Training to Incumbent Workers.

It is essential to keep providing short-term, accessible courses for incumbents' career advancement and upgrade of obsolete skills.

Seventy-five (75%) of the next ten years' workforce is already working, which spotlights incumbent workers and the need to encourage older workers to keep their skills current and remain in the labor force longer. Labor shortages mean that fewer workers work harder in jobs that are less specialized, companies reorganize the work to improve productivity, and/or people rapidly advance into mid- and upper-level positions. Job sharing allows part-time employees to contribute to the workplace. Telecommuting meets some workers' and employers' needs and helps to ease community traffic problems. Technology is infused in all workplaces yet changes so rapidly that one-half of what the new technology graduate learns becomes obsolete within a few years.

The UH Community Colleges have just directed funds to support a workforce position in the Chancellor's Office to develop customized training that is responsive to employers' needs. The position will implement the process recommended by the 1999 Millennium Task Force:

1. Use employers' specified desired learning outcomes, including skills inventories to update curriculum and workplace training needs; tailor available courses; broker in short-term training if they cannot be taught by local providers.
2. Arrange training logistics to deliver training in a "just-in-time" mode under the conditions

(time, place, etc.) that employers indicate are maximally useful.

3. Increase industry awareness of education's efforts to improve workforce development training.

Training needs to target employees and managers in small businesses. The Circuit Rider model is especially suited for Hawai'i's geographically isolated areas and for small businesses in general. Small businesses need to solve their personnel problems due to low or non-existent training budgets, inability to pay competitive wages, and lack of attention to their employees' roles in the success of the business.

The employer-financed Employment and Training Fund (ETF) needs to be re-energized and made more accessible for employers' use. WDC will convene WDD, DBEDT, and the economic development boards to a review and possibly re-set priorities for the use of training grants; and b) re-examine regulations, criteria, application procedures, and the required employer match for ETF grants (cash versus in-kind match).

Career Planning. Underpinning all the activities and recommendations for improving education and training is the need for a universally accessible, comprehensive data base for lifelong career planning.

There are several independent systems, each with at least one distinctive feature, that assist one or more target groups with career planning. They need to be coordinated, enhanced, and free to all Hawai'i's people to plan their lifelong learning and careers. New Jersey, New York, Minnesota, Nevada, and Indiana have such models.

III. Determining Future Labor Demands

Identification of Industries

The Council's strategy for Hawai'i's economic health is to prepare the workforce to support both mature and emerging industries. For identification of important industry clusters in the state, the Council relies on the extensive community discussion that has taken place during 2004 about promising industries, as well as the needs of established industries.

WDC recommends that the State conduct a sophisticated supply/demand analysis of the target industries identified through the county-based Comprehensive Economic Development Strategy (CEDS) process, and forecast implications of various future supply/demand scenarios:

- **Agriculture**
- **Healthcare/Life Sciences**
- **Technology**
- **Tourism**
- **Film & Digital Media**
- **Energy**

From the study's conclusions, educators can decide the most needed education to support the future occupations and skills in the State. Table 8 presents the recommendations for target industries from each of the local community voices. Some of these industries represent a minute portion of today's state economy and are championed for their potential to create high skill, high paying jobs in our state. All local workforce investment boards have decided to concentrate their training dollars and workforce development efforts on the occupations in the priority industry clusters they have identified. See Appendix C for references to the CEDS reports, the four county Local Workforce Investment Boards' studies, and pertinent web sites.

WDC recommends that the ongoing system for identification and verification of industry clusters should involve community discussion, forums, focus groups, formal studies, and interviews of employers and their intermediary associations. This process would specifically identify new businesses in growing industries and growing businesses not necessarily in identified clusters.

Labor Demand: Identification of Occupations and Skill Needs

WDC explored the development of matrices for selected industries, showing projected occupations and skill needs. WDC found that fine work has already been started. The Labor Market Information researchers at both the federal and state levels produce very useful information in readable format. They identify occupations in industries, the required educational level, job projections, and the average wage. See Appendix C for pertinent web sites and a sample occupational outlook for the Biotechnology industry.

WDC strongly endorses State participation in the Census Bureau's Local Employment Data (LED) program. At modest or no cost to the State, LED represents a quantum leap in the information available to plan economic, labor force, education and infrastructure decisions.

WDC also seeks improvements to local data collection, each one carrying start-up and maintenance costs. Specifically, WDC recommends that the DLIR, DBEDT, the counties, and Enterprise Honolulu prepare implementation plans and budget requests for the State to:

HCR 112: status of work on (1)(A) the identification and development of industry clusters in order to determine their economic and workforce potential and the manner in which the industries can be better served;
(1)(B) the development of labor demand and supply matrices for determining future labor demands under various economic scenarios and correlating anticipated labor supply with forecasted industry demands.

HCR 112: recommendations (3) as to methods to better facilitate the gathering and compilation of relevant and necessary data; and (4) for connecting or making compatible the compiled data and other forms of data resulting from economic, workforce, or educational research.

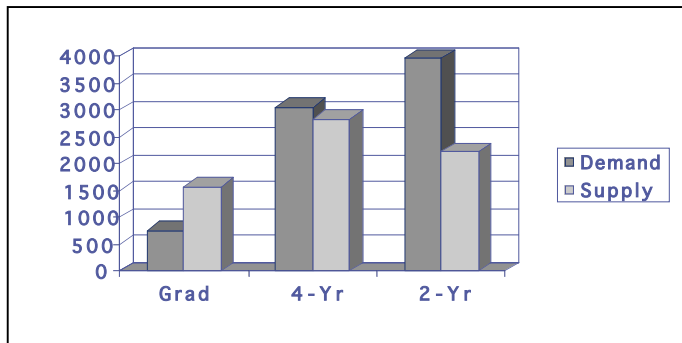
WDC recommends that the State conduct a sophisticated supply/demand analysis of the targeted industry clusters identified through the CEDS process.

WDC recommends that the Governor endorse expanded local workforce-related data collection and research and State participation in the Census Bureau's Local Employment Data (LED) program.

Table 8. Community Recommendations for Targeted Industries in Hawai'i

Sector/Industry	DBEDT	Enterprise Honolulu	O'ahu WIB	O'ahu CEDS	Hawai'i WIB	Hawai'i CEDS	Maui WIB	Maui CEDS	Kaua'i WIB	Kaua'i CEDS
Agriculture	X	X	X	X	E.HI	X	X	X	X	Food/Ag
Healthcare/Medical/ Life Sciences	X	X	X	X	X	Health & Wellness	X		X	Health & Wellness
Technology	X	X	Env.Tech & IT	Info Comm	E.HI-Astron	Science & Hi Tech		X	Env.Tech & Ag	Hi Tech
Tourism	X				X + E.HI-Cruises	Heritage Tourism & Cruises	X	Health & Sports Tourism	X	
Education	X		X		X	X				
Film & Digital Media	X	X		X				X		
Construction			X		X				X	
Retail Trade	X		X		E.HI-Big Box					
Management of Companies & Enterprises		Business Services	X							
Finance & Insurance		X	X							
Real Estate Rental/Leasing			X		X					
Other Services (except Public Administration)			X		Architecture					
Social Services			X		X					
Energy						X				Renewable
Administrative & Support and Waste Management & Remediation Services			X							
Arts & Culture										X
Defense & Dual Use		X								
Information			X							
Professional, Scientific and Technical Services			X							
Public Administration			X							
Recreation										X
Ship Building & Repair			X							
Transportation & Warehousing			X							
Utilities			X							
Wholesale Trade			X							

Table 9. Job/Education Demand Supply Gap



Source: U.S. Census Bureau, 2000 Census; 5% PUMS Files

1. Provide better occupation projections for locally emerging industry clusters under different possible growth scenarios.
2. Identify, by industry and occupation, the distribution of workers who earn half the average, the average, and twice the average wage.
3. Conduct periodic research to determine if the targeted industries, as they expand, create a significant number of jobs at a living wage or above.

The Office of the State Director for Career and Technical Education is exploring Cal-PASS (used by a growing number of California high schools and community colleges) as a means of obtaining better connecting data on DOE and UH outcomes.

Labor Supply: Match Projected Occupations to Existing Post-Secondary Programs

The DLIR's Research & Statistics Office and the UH produced a number of cross-cutting tables for the NGA Project's analysis. In an attempt to pinpoint labor supply, the project examined a table that tried to count the labor supply from all educational institutions by education needed." However, the information does not accurately

identify labor supply. For instance, did the person who obtained an associate degree in Field X go into that field in Hawai'i? Was that person already working in Field X and going to school part-time?

The most useful supply information is shown in Table 9, where the types of degrees earned are aggregated. This tells us, quite simply, that Hawai'i needs to pay the most post-secondary attention to the Community Colleges, which award associate degrees.

Michael Rota, Associate Vice-President for Academic Affairs at the University of Hawai'i (UH), reports that the Hawai'i community colleges participate in a number of national organizations and training consortia with access to state-of-the-art curricula.

These resources have been used in the past to redesign and establish programs and can provide access to training programs in almost all specialties for existing and known emerging industries. For those programs that are not here now, the institutions can tap colleagues and buy off-the-shelf curricula and materials.

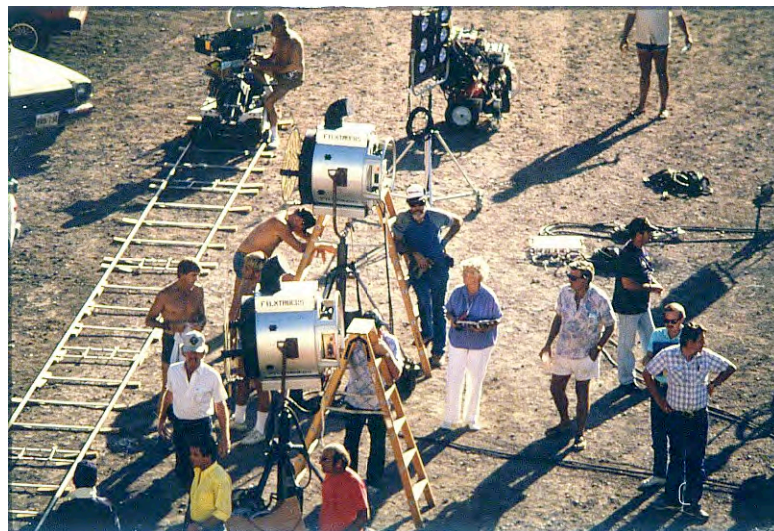
The important issues are program capacity, keeping up with industry standards, and responsiveness to customized training approaches.

Rely on Community Colleges

HCR 112(2): timeline as to when and the manner in which (A) Action is being taken on the aforementioned initiatives; and (B) Further information on such progress will be made available.

2005 Timeline

January	Start statewide promulgation and tracking of NGA Pathways Project and WDC plans
January-March	Consider best practices for organizing workforce development and delivering services
April	Explore revisions to Employment & Training Fund procedures and policies
May	Explore incentives to make senior careers attractive
June	NGA Pathways Project, with emphasis on post-secondary education pipeline, ends. Status of implementation plan will be published.
July	Revise WIA State plan and policies
September	DLIR submits data collection and research plans
October	Submit WIA Annual Plan on performance measures to US Department of Labor
December	Publish <i>Funding Summary</i> and update on educational and data collection improvements



STATE OF HAWAII WORKFORCE DEVELOPMENT STRATEGIC PLAN

Vision: **A globally competitive and skilled workforce that promotes and nurtures a diverse and prosperous economy and preserves the special quality of life in Hawai'i.**

Mission: **Develop a skilled workforce that meets the needs of business and industry, enhances workplace productivity, and increases opportunities for high wage employment and entrepreneurship.**

Goal I: **Align the economic, education, and employment communities into a comprehensive and coordinated network.**

Objective A: Coordinate resources effectively and efficiently.

Objective B: Provide comprehensive information to implementers of workforce development policies.

Goal II: **Provide all people the opportunity to acquire and maintain skills, attitudes and behaviors necessary to be a part of the competitive workforce and to be self-sufficient.**

Objective A: Improve basic skills and qualifications of all job seekers and workers.

Objective B: Increase participation of targeted underrepresented populations in education, training, employment, and career advancement.

Objective C: Increase qualified labor supply for targeted industries for a diversified statewide economy.

Goal III: **Improve the incentives and commitment for businesses to increase innovation and productivity of their work places.**

Objective A: Promote incentives for employers who develop competitive workforce skills and maximize innovations of workplace cultures.

Objective B: Recognize business' workforce models that achieve successful business outcomes.

Appendix A

HOUSE CONCURRENT RESOLUTION 112, H.D. 1

REQUESTING THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM AND THE WORKFORCE DEVELOPMENT COUNCIL TO REPORT TO THE LEGISLATURE REGARDING THE IDENTIFICATION AND DEVELOPMENT OF LABOR SUPPLY AND DEMAND MATRICES, AND THE EXPANSION OF THE EDUCATIONAL PIPELINE SUBSEQUENT TO THE ENACTMENT OF ACT 148, SESSIONS LAWS OF HAWAII 2003.

WHEREAS, the economic future of Hawaii is dependent upon the quality of its workforce in that the economy needs a skilled workforce to grow and prosper; and

WHEREAS, the State has funded multiple workforce development programs in order to develop high-skilled workers and, in turn, higher paying jobs; and

WHEREAS, in Hawaii the need still exists to develop workforce development pipelines and processes; and

WHEREAS, pursuant to Act 148, Session Laws of Hawaii 2003, codified in Section 201-16, Hawaii Revised Statutes (HRS), the Department of Business, Economic Development, and Tourism is required to submit an annual report to the Legislature detailing its efforts to increase the number of high-skilled jobs in targeted industry clusters, in concert with the efforts of the Workforce Development Council; and

WHEREAS, in January 2004, the Department of Business, Economic Development, and Tourism submitted its first annual report recounting its collaborative efforts with the Workforce Development Council to identify industry clusters, establish labor demand and supply matrices to assist in planning for workforce and educational needs, and increase the number of individuals pursuing post-secondary education degree and certificate programs; and

WHEREAS, the identification or development of industry clusters entails the practice of grouping organizations in related industries that share markets, labor needs, and similar infrastructures in order to facilitate opportunities for the collaboration of efforts on common development issues within clusters; and

WHEREAS, the development of labor supply and demand matrices requires the establishment of matrices to cross-reference the industries in Hawaii's economy with the occupation or skill sets required within those industries for forecasting labor demands by industry and occupation and to associate labor supply with demand; and

WHEREAS, increases in the educational pipeline requires the promotion and encouragement of the continued educational pursuits of youth and adults beyond the completion of high school through the acquisition of post-secondary degrees or certificates; and

WHEREAS, Section 201-16, HRS, requires an annual report which generally details efforts to increase the number of high-skilled jobs in targeted industry clusters; however, based upon the initiatives outlined by the Department of Business, Economic Development and Tourism, the need has arisen for the receipt of specific information addressing actions to target industry clusters, develop labor supply and demand matrices, and increase the educational pipeline; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-Second Legislature of the State of Hawaii, Regular Session of 2004, the Senate concurring, that the Department of Business, Economic Development, and Tourism and the Workforce Development Council are requested to submit a report to the Legislature regarding actions which have been undertaken subsequent to the enactment of Act 148, Session Laws of Hawaii 2003; and

BE IT FURTHER RESOLVED that the report shall focus on the following areas:

(1) The status of work on:

(A) The identification and development of industry clusters in order to determine their economic and workforce potential

and the manner in which the industries can be better served;

(B) The development of labor demand and supply matrices for determining future labor demands under various economic scenarios and correlating anticipated labor supply with forecasted industry demands; and

(C) The expansion and enlargement of the educational pipeline through the promotion of youth and adult participation in post-secondary degree or certificate programs;

(2) A timeline as to when and the manner in which:

(A) Action is being taken on the aforementioned initiatives; and

(B) Further information on such progress will be made available;

(3) Recommendations as to methods to better facilitate the gathering and compilation of relevant and necessary data; and

(4) Recommendations for connecting or making compatible the compiled data and other forms of data resulting from economic, workforce, or educational research; and

BE IT FURTHER RESOLVED that the Department of Business, Economic Development, and Tourism and the Workforce Development Council shall submit a report of their findings and recommendations to the Legislature at least twenty days prior to the convening of the Regular Session of 2005; and

BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the Director of Business, Economic Development, and Tourism and the Chairperson of the Workforce Development Council.

Appendix B -- THE EFF WORK READINESS PROFILE

What New Workers in Entry Level Jobs Need to Be Able to Do

New workers need to be able to

Use these EFF Skillswell enough to successfully carry out these critical entry level tasks*:

Communication Skills	Acquire/Use Info	Use Systems	Work with Others	Responsibility	Allocate Resources
<ul style="list-style-type: none"> • Speak So Others Can Understand • Listen Actively • Read With Understanding • Observe Critically <p>Interpersonal Skills</p> <ul style="list-style-type: none"> • Cooperate With Others • Resolve Conflict and Negotiate <p>Decision Making Skills</p> <ul style="list-style-type: none"> • Use Math to Solve Problems and Communicate • Solve Problems and Make Decisions <p>Lifelong Learning Skills</p> <ul style="list-style-type: none"> • Take Responsibility for Learning • Use Information and Communications Technology <p>Equipped for the Future is an initiative of the National Institute for Literacy.</p> <p>DRAFT 12/05/03</p>	<ul style="list-style-type: none"> • Acquire, use, and share information accurately and in a timely manner in order to: <ul style="list-style-type: none"> - Get work done. - Identify appropriate procedures. - Respond to requests from internal and external customers. • Read and understand information presented in written form well enough to get the job done. • Communicate in spoken English well enough to get the job done. • Ask for clarification or help from supervisor or appropriate others when needed. <p>Use Technology</p> <ul style="list-style-type: none"> • Learn how to use appropriate computer-based technology to get the job done most efficiently. • Be able to use a tele-phone, pager, radio, or other device to handle/ process communication. • Make sure that all equipment is in safe working order. • Use equipment properly to minimize damage to equipment or injury to oneself or others. 	<p>UNDERSTAND SYSTEMS</p> <ul style="list-style-type: none"> • Understand how one's own performance can impact the success of the organization. • Comply with organizational policies/procedures consistently. • Pay attention to company guidelines regarding: <ul style="list-style-type: none"> - Personal and professional interactions. - Appropriate dress. - Health and safety. • Follow established procedures for handling urgent situations or emergencies. • Keep informed about quality and health standards set by external sources, including unions, OSHA, and other national and international organizations. • Go to the appropriate person/source when approval is needed for work-related activities. <p>MONITOR AND CORRECT PERFORMANCE</p> <ul style="list-style-type: none"> • Monitor own work quality. • Accept and use constructive criticism for continuous improvement of own job performance. • Keep track of changes within the organization and adapt to them. 	<p>DIVERSITY</p> <ul style="list-style-type: none"> • Work as part of a team to develop and achieve mutual goals/ objectives. • Develop and maintain good working relations with coworkers, super-visors, and others throughout the organiza-tion, regardless of background or position: <ul style="list-style-type: none"> - Be respectful and open to the thoughts, opinions, and contributions of others. - Avoid use of language or comments that stereotype others. <p>NEGOTIATE</p> <ul style="list-style-type: none"> • Work through conflict constructively. <p>SERVE CLIENTS</p> <ul style="list-style-type: none"> • Address customer comments, questions, concerns and objections with direct, accurate, and timely responses. • Verify customer identification to validate forms, provide services, or carry our procedures. <p>Know How to Learn</p> <ul style="list-style-type: none"> • Accept help from supervisors and coworkers. • Learn new/additional skills related to your job. • Learn about the products/services of the organization. 	<ul style="list-style-type: none"> • Demonstrate willingness to work. • Take responsibility for completing one's own work assignments: <ul style="list-style-type: none"> - Accurately. - On time. - To a high standard of quality. - Even when the work is physically or mentally challenging. - As efficiently as possible, to minimize costs, rework, and production time. • Show initiative in carrying out work assignments. <p>Integrity</p> <ul style="list-style-type: none"> • Demonstrate integrity. • Maintain confidentiality, as appropriate, about matters encountered in the work setting. <p>Self Management</p> <ul style="list-style-type: none"> • Display responsible behaviors at work: <ul style="list-style-type: none"> - Avoid absenteeism. - Demonstrate promptness. - Maintain appropriate grooming and hygiene. - Do not attend to personal business when on the job, except in emergencies. - Manage stressful situations effectively. 	<ul style="list-style-type: none"> • Use basic math well enough to get the job done. • Manage time effectively to: <ul style="list-style-type: none"> - Get the work done on schedule. - Prioritize tasks. - Make sure that urgent tasks are completed on time. • Make sure that materials, tools, and equipment are available to do the job effectively. <p>Solve Problems</p> <ul style="list-style-type: none"> • Cope with a work situation or tasks that change frequently: <ul style="list-style-type: none"> - Demonstrate flexibility. - Accept new or changed work responsibilities with a positive attitude. - Adjust to unexpected problems and situations by seeking advice from a supervisor or appropriate others. • Identify actual or potential problems related to one's own work: <ul style="list-style-type: none"> - Report them in a timely manner, according to company policy. - Help to fix them. <p>*Tasks are organized according to SCANS categories.</p>

Appendix C

References for Identification of Industries, Occupations & Skills

Summaries of Community Studies to Determine Workforce Priorities

Comprehensive Economic Development Strategy (CEDS) is a collaborative effort between the State of Hawai'i, Kaua'i Economic Development Board, Maui Economic Development Board, Hawai'i Island Economic Development Board, Enterprise Honolulu, the Economic Development Alliance of Hawai'i, and the county economic development agencies. There are two inter-related parts of this project: 1) development of the CEDS and 2) identification of cluster industries and infrastructure projects to support these industries over a five-year time period. A CEDS is required as a prerequisite for certain types of EDA funding. See Table 8 for each county's industry clusters as identified in the CEDS process.

Key economic drivers for the State as a whole were identified. Tourism remains the dominant economic engine with one out of every three jobs directly or indirectly related to the tourism industry. Opportunities for diversification exist in the expansion of niches such as agricultural tourism, cultural tourism, educational tourism, health and wellness, tourism, eco-tourism and techno-tourism.

Defense, agriculture, technology, life science/biotechnology, energy/renewable technologies, astronomy and space science, arts, film and entertainment, ocean industries, and forestry are other key areas of economic activity.

O'ahu Workforce Investment Board contracted a two-phase study in 2004. Sixteen "super sectors" were identified as key industries on O'ahu; these are shown in Table 8. Of these 16 industries, four -- construction, insurance agencies and brokerages, professional and technical services, and ambulatory health care services -- were targeted for employer surveys. From the responses of 225 employers across these four industries, the common challenges and obstacles in recruitment, training and retention include:

- Difficulty in recruiting qualified employees;
- Poor employee work habits and attitudes;
- Low technical skill level of new employees; and
- Poor basic skills of new employees.

The training that is most needed by their employees includes:

- Advanced technical skills;
- Computer use skills;
- Basic technical skills;
- Results orientation; and
- Customer focus.

Hawai'i Workforce Investment Board's Planning Committee, in 2004, conducted an island-wide survey that identified emerging industries in the county for the next five years as:

- Health/Social Services
- Construction
- Education
- Hospitality

The board, with the Mayor's Office and the Big Island Workforce Connection, co-sponsored a forum in October 2004 to provide information to develop a Workforce Development Action Plan. The forum attracted almost 50 business representatives from Kona and 20 from Waikoloa and addressed problematic issues facing employers and employees alike, such as:

- Affordable housing;
- Availability of transportation for employees; and
- Inadequate basic occupational skills of potential employees.

Maui County Workforce Investment Board contracted MGT of America, which reported in May 2003. Employers said there were high operating costs and too much regulation. Employers also identified these lacks in job seekers and some workers:

- Qualified individuals for mid-management positions
- Work ethic
- Commitment to work
- Respect for authority
- Flexibility
- Communication skills
- Problem-solving skills

Employee concerns focused on:

- Lack of affordable housing
- Poor public transportation
- Lack of affordable child care
- Not enough jobs
- Low levels of education
- Substance abuse
- Teen pregnancy
- Lack of mental health assistance

Kaua'i Workforce Investment Board, in 2004, conducted focus groups in the tourism, healthcare/human services, construction, and environment technology/agriculture industries. Employers in these industries reported that:

- The skills most in demand are soft skills, middle management, and leadership skills.
- Critical skill gaps are SCANS, new ways of doing work, multi-taking, and computer skills.
- Preferred credentials are internships, technical/specialized certification.
- The most useful training programs are online training, peer training, and on-the-job training.

Chamber of Commerce's Project JOBS, in March 2004, reported the results of its employer interviews. Fifty five percent of those interviewed reported difficulty in recruiting new employees. They faced shortages of technically skilled workers; i.e., civil engineers and surveyors, nurses, medical and dental technicians, physicians, scientists. They said too many applicants lacked proper work ethics and attitudes.

Web Sites Pertinent to Workforce Planning

www.stats.bls.gov/
www.hiwi.org
www2.hawaii.gov/DBEDT/index.ctm
www.enterprishonolulu.com

President's High Growth Job Training Initiative

Sample Occupational Outlook

Biotechnology

In emerging industries such as biotechnology, occupations are often difficult to classify. The tables below show the expected growth in occupations that are included in the biotechnology industry.

Biotech Related Occupations and their Projected 10 Year Growth						
Biotech-Related Occupations	Number Employed 2002 (000's)	Number employed 2012 (000's)	Numeric Change (000's)	Change %	2002 Median Annual Earnings	Postsecondary Education & Training
Medical scientists, except epidemiologists	58	73	16	26.9	56,980	Doctor's degree
Biomedical engineers	8	10	2	26.1	60,410	Bachelor's degree
Environmental scientists and specialists, including health	65	80	15	23.7	47,600	Master's degree
Biological scientists, all other	27	33	6	22.3	53,300	Bachelor's degree
Biological technicians	48	57	9	19.4	32,710	Associate's degree
Medical and clinical laboratory technicians	147	176	29	19.4	29,040	Associate degree
Chemist	84	95	11	12.7	52,890	Bachelor's degree
Agricultural & food science technicians	20	22	2	9.3	28,580	Associate's degree
Chemical technicians	69	72	3	4.7	37,430	Bachelor's degree

Employment of Wage & Salary Workers in Pharmaceutical & Medicine Manufacturing by Occupation, 2002 (000's)				
Occupation Title		Total Employment		% of Total
All occupations		293		100
Chemists & materials scientists		15		37.5
Packaging & filling machine operators & tenders		20		6.9
Business operations specialists		14		4.7
Secretaries & administrative assistants		10		3.5
First-line supervisors/managers of production & operating workers		9		3.1
Chemical equipment operators & tenders		9		3.1
Computer specialists		9		3.1
Medical scientists		9		3
Inspectors, testers, sorters, samplers, & weighters		9		2.9
Laborers and freight, stock, & material movers, hand		8		2.7

This is not a comprehensive list of occupations. Please refer to the U.S. Bureau of Labor Statistics employment projections Web page at www.stats.bls.gov/ for more biotechnology occupational information.

Abbreviations

CEDS	Comprehensive Economic Development Strategy
CLF	Civilian Labor Force
DBEDT	Department of Business, Economic Development & Tourism
DHS	Department of Human Services
DLIR	Department of Labor & Industrial Relations
DOE	Department of Education
DPS	Department of Public Safety
EFF	Equipped for the Future
ESL	English as a Second Language
ETF	Employment & Training Fund
LED	Local Employment Data
NGA	National Governors' Association
TANF	Temporary Assistance for Needy Families
UH	University of Hawai'i
USDOE	U.S. Department of Education
USDOL	U.S. Department of Labor
WDC	Workforce Development Council
WIA	Workforce Investment Act

End Notes

¹ See Appendix A for HCR 112. Act 148-2003 amended the Workforce Development Council's (WDC) enabling statute to call for a comprehensive workforce plan with strategic goals and measurable outcomes to: 1) project demand, training and placement of skilled workers for the next ten years; 2) inform private sector employers about the various sources of workforce assistance; 3) facilitate access to workforce resources for employers and employees; 4) improve opportunities for individuals to learn and develop new skills; 5) facilitate the Department of Education's development of curricula to prepare students for employment; 6) recommend improvement to existing programs, elimination of ineffective programs, and creation of new programs to improve workforce development; 7) identify required resources, obstacles and best practices to implement the comprehensive state strategic plan; and 8) recommend a detailed budget for the comprehensive state workforce plan with justification for each expenditure.

² Stern, Sol, "The Pending Teacher Shortage", *Organization for Quality Education*, September 2000.

³ <http://www.ed.gov/programs/transitionteach/index.html>

⁴ One in ten Hawai'i residents (10.7%) lives at or below the federal poverty guidelines. Using the federal poverty level seriously underreports poverty, as it costs two to three times that level to achieve self-sufficiency in this state. To see how much is needed for families in Hawai'i to adequately meet its basic needs without public or private assistance, see Hawai'i's self-sufficiency report at www.sixstrategies.org/states/states.cfm.

⁵ Disability & Communication Access Board, *State of Hawai'i Access for Employees with Disabilities Manual, Revised Edition*, June 2004.

⁶ Schweke, William, "Smart Money - Education and Economic Development", *Economic Policy Institute*, 2004. Rolnick, Art & Grunewald, Rob, "Early Childhood Development: Economic Development with a High Public Return", Federal Reserve Bank of Minneapolis, *fedgazette*, March 2003.

⁷ Hawai'i Kids Watch, *Children's Budget Project*, 2003.

⁸ NGA Center for Best Practices, *A Governor's Guide to Strengthening State Entrepreneurship Policy*, 2004.